

IN THE CLAIMS

1 1. (Original) An object which, in its outer surface contains a color-
2 forming composition which comprises:
3 a. a solvent-absorbing material;
4 b. a color former compounded with said solvent-absorbing material,
5 wherein said color former functions as a metal chelating agent; and
6 c. metal ions capable of forming a chelate complex with said color former
7 as said solvent-absorbing material absorbs said solvent, resulting in a
8 detectable color change of said composition.

1 2. (Original) The object of claim 1 wherein said solvent absorbing
2 material is a polymer

1 3. (Original) The object of claim 2 wherein the solvent absorbing
2 material is selected from the group consisting of polyethylene acrylic acid,
3 polyethylene methacrylic acid, and copolymers thereof; terpolymers of
4 polyethylene, an acrylic acid and an acrylate; polyurethane; poly-
5 (acrylonitrile-butadiene-styrene); polyvinylchloride; polypropylene
6 copolymer; polystyrene; polyurethane; silicon elastomers; organic rubbers;
7 and combinations thereof.

1 4. (Original) The object of claim 3 wherein said solvent absorbing
2 material is polyethylene methacrylic acid, polyethylene acrylic acid, and
3 mixtures thereof.

1 5. (Original) The object of claim 4 wherein said color-forming
2 composition exhibits thermoxidative stability at compounding
3 temperatures of at least about 90°C.

1 6. (Original) The object of claim 5 wherein said color-forming
2 composition exhibits thermoxidative stability at extrusion temperatures of
3 at least about 180°C.

1 7. (Original) The object of claim 2 wherein said solvent absorbing
2 material is a paint.

1 8. (Original) The object of claim 3 wherein said metal ions are
2 selected from the group consisting of Na⁺, Li⁺, Zn²⁺, Fe³⁺, Fe²⁺, Ca²⁺,
3 Mg²⁺, Li⁺, Ti²⁺, Ti⁴⁺, Mn²⁺, and combinations thereof.

1 9. (Original) The object of claim 8 wherein said metal ion is Zn²⁺.

1 10. (Original) The object of claim 8 wherein said metal ions are
2 contained in said solvent absorbing material.

1 11. (Original) The object of claim 9 wherein the metal ions are
2 provided by zinc acetate.

1 12. (Original) The object of claim 11 wherein the zinc acetate is
2 present from about 0.1% to about 2.5%, by weight of the composition.

1 13. (Original) The object of claim 8 wherein said color former
2 produces a permanent color change which is not reversed by removal of
3 said solvent from said solvent absorbing material.

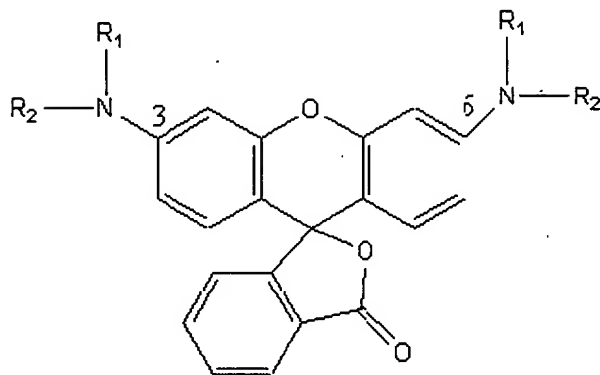
1 14. (Original) The object of claim 13 wherein said color former is a
2 1,2-dihydroxybenzene derivative.

1 15. (Original) The object of claim 14 wherein said color former is
2 selected from the group consisting of 1,2-dihydroxybenzene, 3-
3 methylcatechol, 4-methylcatechol, 4,5-dihydroxy-1,3-benzenedisulfonic
4 acid disodium salt and 1,2,3-trihydroxybenzene and mixtures thereof.

1 16. (Original) The object of claim 15 wherein said color former is 1,2-
2 dihydroxybenzene and is present in the composition at from about 0.1%
3 to about 2.5%, by weight

1 17. (Original) The object of claim 8 wherein the color change is
2 reversible when the absorbed solvent is removed from said outer covering.

- 1 18. (Original) The object of claim 17 wherein said color former is a
2 substituted fluoran derivative with at least one amine group at positions 3
3 and 6.



- 1 19. (Original) The object of claim 18 wherein R1 and R2 of the amine
2 group are alkyl groups containing from one to six carbon atoms
3 independently.

- 1 20. (Original) The object of claim 19 wherein said color former is
2 selected from the group consisting of 3-diethylamino-6-methyl-fluoran, 3-
3 dimethylamino-6-methyl-fluoran, 3-dimethylamino-6-methyl-7-
4 anilino-fluoran, 2-anilino-3-methyl-6-dibutylaminofluoran, 3-diethylamino-6-
5 methyl-7-anilino-fluoran, and 2-anilino-3-methyl-6-diethylaminofluoran and
6 mixtures thereof.

- 1 21. (Original) The object of claim 18 wherein a fixative is added to
2 retard reversal of said color change and wherein said fixative is present at
3 from about 0.1% to about 2.5%, by weight.

1 22. (Original) The object of claim 21 wherein the fixative is a
2 phenolic-based compound.

1 23. (Original) The object of claim 22 wherein the fixative is salicylic
2 acid or bisphenol-A, the acetate derivatives thereof and mixtures thereof.

1 24. (Original) The object of claim 1 wherein the object is a golf ball.

1 25. (Original) The object of claim 25 wherein said solvent-absorbing
2 material is polyethylene methacrylic acid; said color-former is from about
3 0.1% to about 2.5%, by weight of a 1,2-dihydroxybenzene derivative; and
4 said metal ion is Zn^{2+} , in an amount of from about 0.1% to about 2.5%,
5 by weight.

Claims 26 -44. (Cancelled)